ECONOMIC ASSESSMENT OF THE TRENT-SEVERN CANAL 1984-85

EVALUATION AND ANALYSIS DIVISION
SOCIO-ECONOMIC BRANCH
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SUMMARY

ECONOMIC BENEFITS TO ONTARIO:

Important as it is for recreation and flood control purposes, the Trent-Severn Canal also generates significant economic impacts. These impacts result from expenditures made to operate and maintain the canal, purchases made by boaters and land based canal visitors as well as the value of land and businesses who are dependent on the control of flood waters in the surrounding lakes.

By examining the economic impacts of the Trent-Severn Canal operating, maintenance and visitor expenditures, we can provide a minimal estimate of the economic repercussions for one year.

Parks expended $11.6 million in 1984-85 to operate and maintain the canal. The 920 thousand land based visits plus the 245 thousand boats that passed through the locks, resulted in a conservatively estimated $3.1 million in direct expenditures for items such as food, transportation, and accommodation. Thus, in 1984-85, $14.7 million was expended by Parks and canal visitors.

The economic impacts of these expenditures are summarized in the following table. All results include the direct, indirect, and induced impacts.

Estimated 1984-85 Economic Impact in Ontario of the Trent-Severn Canal

Total Person-Years of employment generated	575 P.-Y.
Total Labour Income Generated	$13.0 million
Total Gross Domestic Product Generated	$17.8 million
Revenue Generated for Ontario Government	$ 1.8 million
Revenue Generated for all levels of Gov't in Ontario	$ 6.0 million

NOTE: Results obtained using the Statistics Canada's Interprovincial Input-Output Model.

Employment

Of the 575 person-years generated, 42% (or 244) are in the tertiary sector of the economy. This sector is mainly service oriented and thus highly labour intensive. It includes "both" retail and accommodation businesses. Over 140 of the person-years generated were in these two sectors alone indicating the important tourism role the canal plays. The $11.6 million expended by Parks results in a ratio of 1 person-year of employment generated for about every $20 thousand expended.

Labour Income

Labour income, which is defined by Statistics Canada as salaries, wages and other supplementary labour income, was estimated at $13.0 million. Thus, for every dollar expended to operate and maintain the canal, $1.12 was generated in the Ontario economy in the form of labour income.

Government Revenue

Expenditures by Parks and visitors result in the generation of revenue for the various levels of government. Revenue is mainly generated as a result of direct and indirect taxes imposed by the governments on goods and services purchased. For the provincial government alone, Parks and visitors expenditures generated nearly $1.8 million in revenue. The federal and municipal governments also received in total about $4.2 million in revenue. Therefore, considering all levels of government in Ontario, $6.0 million in revenue was generated. In other words, for every dollar expended by Parks in 1984-85 on Trent-Severn, 52¢ was returned in the form of government revenue of which 16¢ was returned to the Ontario government alone.

The above estimates must be considered conservative as they do not include estimates of the proportion of equipment purchases by canal visitors that could legitimately be attributable to canal operation. Nor do these figures include the value of the land and businesses that are dependent on canal operation. Estimates of these items require special study. However, a report of the Task Force on Program Review suggested that the overall economic impacts are high. Industries such as boat building and cottage construction are affected by the maintenance of canals. This report also suggests that significant benefits accrue to anyone owning land or facilities along canals as a result of flood control. While figures on these benefits have not been developed, they would appear to be even larger than those generated by the $14.7 million in Parks and visitor expenditures.

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INTRODUCTION

The purpose of this report is to evaluate the impact on the Ontario economy of Trent-Severn Canal expenditures and visitor spending attributable to the canal facilities. The following results demonstrate that the Canal's economic impact complements Parks mandate "To protect for all time those places which are significant examples of Canada's natural and cultural heritage and also to encourage public understanding, appreciation and enjoyment of this heritage in ways which leave it unimpaired for future generations." (Parks Canada Policy 1983, p. 11).

The impact on the Ontario economy of spending attributable to the Trent-Severn Canal for the 1984-85 fiscal year is estimated by using Statistics Canada's 1979 version of the interprovincial input-output model.[1] This impact is analyzed in terms of employment, labour income, gross domestic product and government revenue. Chapter I examines spending attributable to the canal. It identifies the expenditures injected into the Canadian economy by both Parks (DOE) and visitors using the canal. Chapter II discusses the impact on income in terms of labour income, gross domestic product and total income. Chapter III examines the economic repercussions of the Trent-Severn Canal on employment. Finally, chapter IV discusses how the canal affects government revenue.

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1 The basic hypothesis and the method employed are not explained in this report. Those interested may refer to Evaluation of the Impact on the Canadian Economy of Spending Attributable to National Heritage Locations Administered by Parks Canada, Volumes I, II, III and IV, Parks Canada, Socio-Economic Division, April 1983.

CHAPTER I

SPENDING ATTRIBUTABLE TO TRENT-SEVERN CANAL

For the purposes of this study, the impact of the Trent-Severn Canal on the Ontario economy results from 1) government expenditures to operate, maintain, and repair the canal and 2) spending by visitors that is directly attributable to the canal. Government expenditures are obtained from Parks financial records. The estimate of visitor spending, on the other hand, is the end result of applying two successive models. The first model, developed by the Socio-Economic Branch (SEB), uses attendance data; the second is Tourism Canada's Tourism Impact Model (TIM).

The economic impact on the Ontario economy of these expenditures is measured with the aid of the Statistics Canada interprovincial input-output model of the Canadian economy. This model makes it possible to see how demand is generated in the Canadian economy and how it affects income, employment and government revenues in each province.

1.1 Parks Related Expenditures

Financial records to June 30, 1985 show that during the 1984-85 fiscal year, Parks spent some $11.62 million on the Trent-Severn Canal. From this total, $0.30 million in revenue was earned from housing rentals, leases, etc. These revenues are subtracted from the total of Trent-Severn expenditures to arrive at the expenditures that actually have an economic impact. This substraction results in a total of $11.32 million. Figure 1(a) illustrates this transaction.

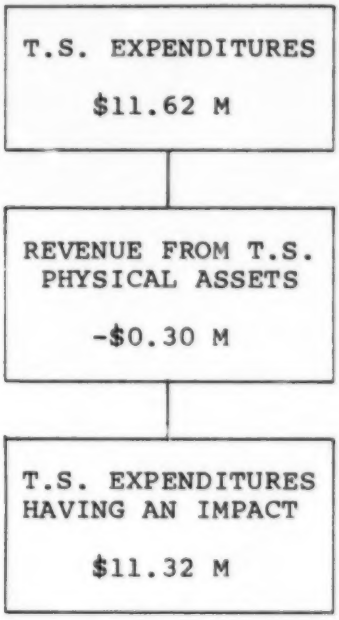
1.2 Visitor Spending

In 1984-85, an estimated 920 thousand land based visits were made to Trent-Severn locations while 245 thousand boats passed through the locks. Expenditures made in getting to and during the visit at these locations fall primarily into five economic sectors: 1) transportation, 2) accommodation, 3) food and beverages, 4) entertainment and recreation, and 5) other trip costs.

The transportation sector includes all vehicle maintenance services, purchases of goods (including gasoline) and all other modes of transportation used by tourists. In 1984-85, Trent-Severn Canal visitors spent $430 thousand in this sector. Visitors also spent an estimated $1,6 million on accommodation and an estimated $430 thousand on food and beverages.

FIGURE 1(a)

Parks (DOE)
Trent-Severn Expenditures
Having An Economic Impact



The entertainment and recreation sector includes theatre and movies, various types of trips and entertainment and other recreational services. Visitors to Trent-Severn locations spent just over $306 thousand in this sector during 1984-85. The "other trip costs" sector consists of: retail sales, taxis, personal services, car rentals and travel agents. Visitor spending in this sector totalled $306 thousand in 1984-85.[2]

2 For further information about the method used to estimate visitor spending: Evaluation of the Impact on the Canadian Economy of Spending Attributable to National Heritage Locations Administered by Parks Canada, Volume II, April 1983.

Combining the five expenditure sectors, it was estimated that visitors spent a total of $3.07 million in 1984-85 while visiting the Trent-Severn Canal. Part of this visitor spending (lock permits and licences, sales of maps and charts, etc.) represents revenue to Parks. The amount involved, which totals $151 thousand, must be deducted from the $3.07 million figure if we are to derive the amount of spending that has an impact on the Ontario economy. Visitor spending having an economic impact therefore totals approximately $2.92 million, as illustrated in Figure 1(b). It is assumed here that without the existence of the Trent-Severn Canal, the visitors would not have spent these $3.07 million.

1.3 Final Canadian Demand

The analysis thus far shows that the Trent-Severn Canal has injected a net $11.32 million into the economy and that canal visitors spent $2.92 million. The total estimated final demand in the Canadian economy is therefore $14.24 million. Final demand is defined as the demand which is in fact actually generated in the economy.

Of this $14.24 million in final demand, the model estimates that $680 thousand are accounted for as goods imported from abroad by visitors and Parks and as indirect taxes. These two components thus represent an outflow from the economy. In fact the Statistics Canada model considers amounts spent on imported goods and government revenue as not being reintroduced into the economy and therefore having no economic impact.

Subtracting these two components from the final demand estimate leads to the more restricted concept of final Canadian demand. As one might expect, final Canadian demand refers to the amount remaining within our country's borders and which leads to the production of Canadian goods and services. In 1984-85, final Canadian demand totalled $13.56 million. It is this amount which is used to evaluate the economic impact of the Trent-Severn Canal. Final Canadian demand can be separated into the demand impacting Ontario industries and the demand impacting the industries of the other provinces. With $13.06 million in final demand, the province of Ontario takes more than 95% of the final Canadian demand.

Figure 1(c) summarizes the process thus far, while Figure 1(d) illustrates the inferences that may be drawn from final Canadian demand. Each of the elements in Figure 1(d) will be analyzed separately.

FIGURE 1(b)

Visitor Spending Having An Economic Impact

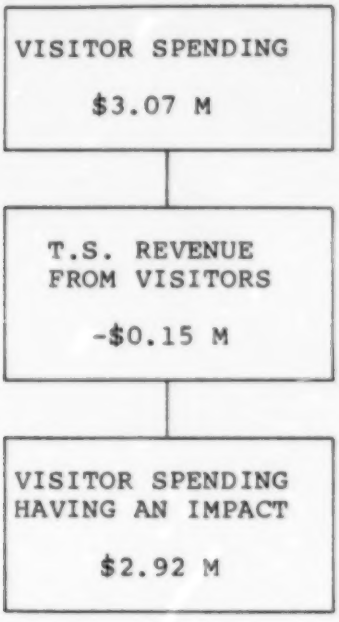


Table 1 depicts the final Canadian demand generated in the economy by industry sector. The primary industry categories include the extraction of natural resources (agriculture, mining, etc.); the secondary sector involves the processing industries (textiles, furniture, machinery, etc.); the construction sector includes all types of construction (buildings, roads, dams, etc.); the tertiary sector consists of service industries (transportation, communications, services to businesses, etc.).

Table 1 shows the predominance of the household sector in final Canadian demand analysis. In fact, salaries and wages paid by Parks amounted to $5.83 million, or 43% of all domestic demand. The tertiary sector was second most important representing 30% of all final demand with visitor expenditures being mainly responsible for this high demand. The tertiary sector captured 99% of all visitor spending which is not surprising since most businesses involved

FIGURE 1(c)

Final Canadian Demand Attributable To Trent-Severn Canal

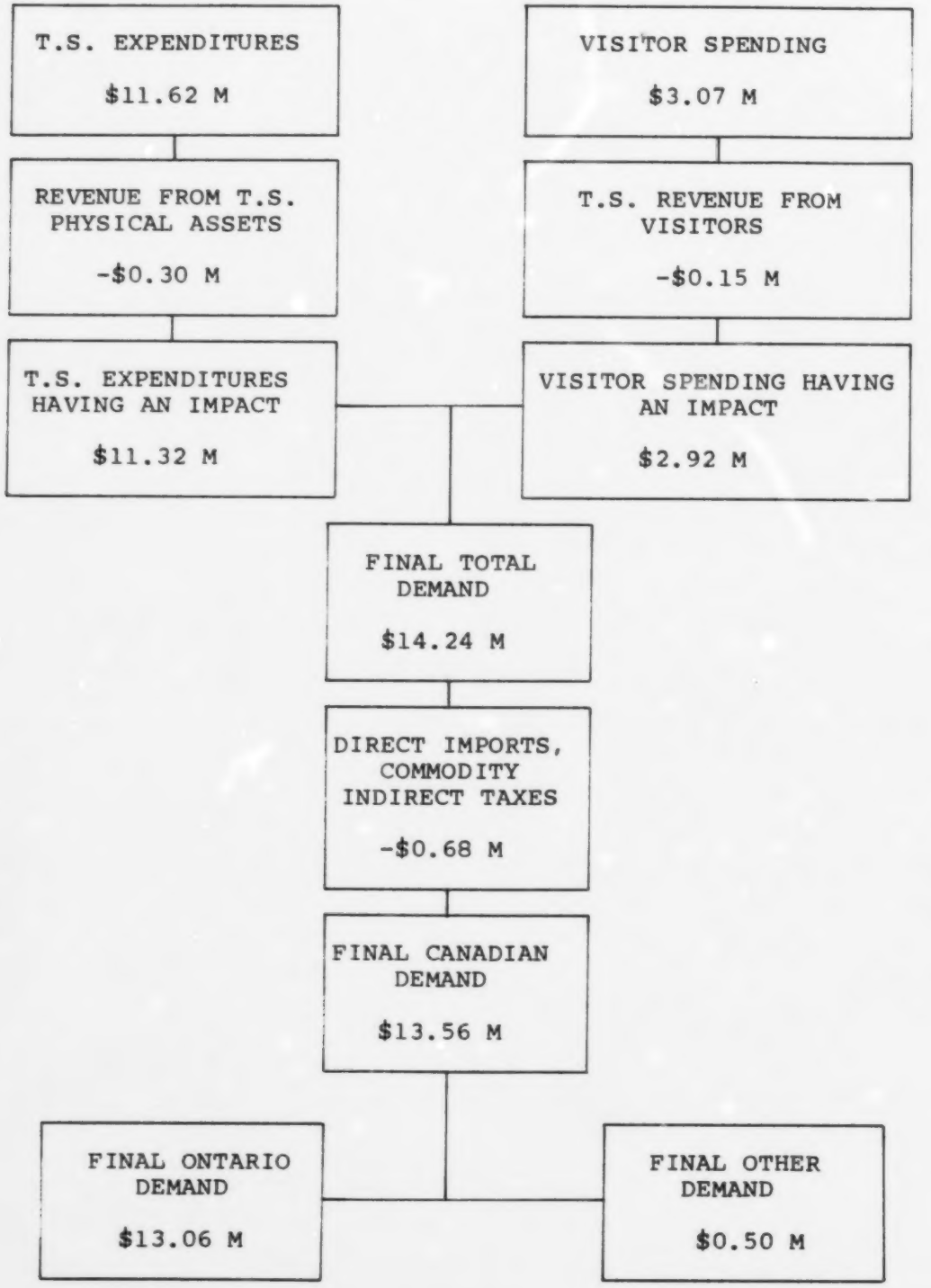
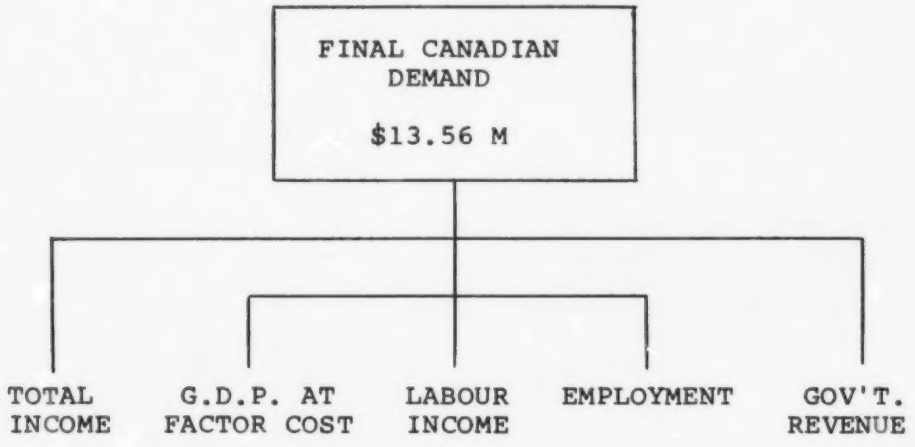


FIGURE 1(d)

Components Involved In Economic Impact Of
Trent-Severn Canal



in the tourism industry are in the tertiary sector. By contrast, Trent-Severn Canal spent $1.01 million in this sector, or 23% of its industrial demand. Much more important for the Trent-Severn Canal is the $3.02 million of final demand in the construction sector. This demand represents more than 60% of the industrial demand of Parks' expenditures. Trent-Severn Canal was responsible for almost all the final domestic demand impacting the construction sector in Table 1.

Table 2 shows the final demand generated in Ontario. Comparison with Table 1 indicates that all construction demand and salaries and wages paid by the canal were in Ontario. Moreover, final demand distribution in Ontario is very similar to the final Canadian demand. This indicates that leakage is very low and that most of every dollar spent in Ontario for the canal (be it by visitors or Parks') remains in Ontario.

TABLE 1

Final Canadian Demand, By Industry Sector

Industry Sector	Trent-Severn $ 000	Visitors $ 000	Total $ 000
Primary	28.8	16.5	45.3
Secondary	684.6	4.3	688.9
Construction	3,019.0	1.4	3,020.4
Tertiary	1,104.9	2,873.4	3,978.3
- Transportation & warehousing	40.6	328.6	369.2
- Utilities	137.3	2.4	139.7
- Retail & trade	118.3	313.6	431.9
- Accomodation & restaurants	1.1	1,881.3	1,882.4
- Services to business	427.6	8.0	435.6
- Other	380.0	339.5	719.5
Sub-total	**4,837.3**	**2,895.6**	**7,732.9**
Household			
- Salaries and wages paid by T.S. Canal	5,829.9	-	5,829.9
TOTAL	**10,667.2**	**2,895.6**	**13,562.8**

TABLE 2

Final Ontario Demand, By Industry Sector

Industry Sector	Trent-Severn $ 000	Visitors $ 000	Total $ 000
Primary	18.5	16.5	35.0
Secondary	473.6	4.3	477.9
Construction	3,019.0	1.4	3,020.4
Tertiary	955.1	2,743.7	3,698.8
- Transportation & warehousing	39.1	198.8	237.9
- Utilities	133.7	2.4	136.1
- Retail & trade	118.2	313.6	431.8
- Accommodation & restaurants	1.0	1,881.3	1,882.3
- Services to business	327.0	8.0	335.0
- Other	336.1	339.6	675.7
Sub-total	**4,466.2**	**2,765.9**	**7,232.1**
Households			
- Salaries and wages paid by T.S. Canal	5,829.9	-	5,829.9
Total	**10,296.1**	**2,765.9**	**13,062.0**

CHAPTER II

IMPACT ON INCOME IN ONTARIO

Final domestic demand generates many different types of income. The types of income analyzed in this chapter are labour income, gross domestic product and total income.

2.1 Labour Income

As the name indicates, labour income consists of the total pay earned by wage-earners (i.e. salaries, wages and other supplementary labour income). Table 3 shows the direct, indirect, and induced labour income generated by the final domestic demand of visitors and Trent-Severn Canal. The total labour income generated amounts to $13.04 million.

Visitor spending generates some $1.89 million in income while canal expenditures generate $11.15 million. Direct labour income was $8.38 million compared to $4.66 million for indirect and induced labour income. This shows that for every dollar of direct income generated by the canal and visitors, 55 cents of indirect and induced labor income are created. Direct labour income consists of the increased labour income resulting from initial spending. Indirect labour income is the labour income generated by the industries supplying the industries stimulated by the initial demand. Induced labour income results from the additional spending households make because of their increased direct and indirect labour income.

2.2 Gross Domestic Product

If the net income of individual businesses and other surpluses[3] are added to labour income, the resulting figure is the gross domestic product at factor cost.

Gross domestic product (GDP) is the value of the net output of intermediary inputs (i.e. the value added to the total goods and services produced). Value added may be measured in terms of market price or factor cost. The GDP at market price indicates the total value added to goods and services. It is equal to the income generated by production and thus

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3 Corporation profits, dividends paid to persons, capital cost allowance and depletion (mines and other extraction industries).

TABLE 3

Direct, Indirect And Induced Labour Income Generated In Ontario

	Trent-Severn $ 000	Visitors $ 000	Total $ 000
Direct Labour Income	7,432.5	952.1	8,384.6
Indirect and Induced Labour Income	3,714.5	941.8	4,656.3
Total Labour Income	**11,147.0**	**1,893.9**	**13,040.9**

includes indirect taxes and subsidies. GDP at factor cost is the value added in relation to the factors of production: labour, material used, and capital. This index therefore excludes all indirect taxes. By eliminating the components that add nothing to the value of production and that go directly to government, the GDP at factor cost gives a more accurate picture of value added in the economy.

Table 4 shows the gross domestic product at factor cost generated in the Ontario economy for each industry sector. Thus the $13.56 million in final Canadian demand (Table 1) produced by the Trent-Severn Canal and visitor expenditures, generated over $17.80 million in value added to the Ontario economy. In other words, for every dollar in final demand that is attributable to the Trent-Severn, $1.31 of gross domestic product is generated in the Ontario economy. Assuming that visitor spending is attributable to the canal, every dollar spent (i.e. having an impact) by Parks for the Trent-Severn Canal increases the value added in the Ontario economy by $1.57.

A close study of Table 4 shows that the tertiary sector, with a GDP of $7.60 million, is the main beneficiary. It should be recalled that most visitor services are in the tertiary sector: restaurants, accommodation, recreational activities, etc. The tertiary sector is closely followed by households, with $6.31 million, and the construction sector, with $1.76 million.

TABLE 4

Gross Domestic Product At Factor Cost Generated In Ontario, By Industry Sector

Industry Sector	Trent-Severn $ 000	Visitors $ 000	Total $ 000
Primary	272.2	129.4	401.6
Secondary	1,405.2	320.2	1,725.4
Construction	1,724.3	40.2	1,764.5
Tertiary	5,000.5	2,595.6	7,596.1
- Transportation & warehousing	290.2	181.3	471.5
- Utilities	378.8	86.7	465.5
- Retail & trade	1,008.4	426.0	1,434.4
- Accommodation & restaurants	370.8	1,105.9	1,476.7
- Services to business	433.6	63.6	497.2
- Other	2,518.7	732.1	3,250.8
Sub-total	**8,402.2**	**3,085.4**	**11,487.6**
Households	6,237.5	76.6	6,314.1
- Salaries and wages paid by T.S. Canal	5,829.9	-	5,829.9
- Other households G.D.P.	407.6	76.6	484.2
Total	**14,639.7**	**3,162.0**	**17,801.7**

In Table 5, GDP at factor cost is broken down into direct, indirect and induced GDP. This shows that Trent-Severn Canal expenditures had direct repercussions in the order of $8.21 million compared to $1.50 million for visitor spending. Direct GDP consists of the increased income resulting from initial spending. Direct GDP for all spending totals $9.71 million.

Indirect GDP is the portion of value added produced in supplying the industries stimulated by initial demand. In effect, when demand increases in a given industry sector, this sector needs to obtain materials and supplies from other industries. In other words, indirect GDP is the value added in the economy in relation to these supply industries. Induced GDP results from an increase in economic activity due to additional spending by households because of their added income. Table 5 shows that indirect and induced GDP total approximately $8.09 million: $6.43 million of this comes from Trent-Severn Canal expenditures and $1.66 million from visitor spending.

2.3 Total Income

As explained earlier, GDP at factor cost consists of salaries and wages plus the net earnings of businesses and other surpluses. By adding indirect taxes to the GDP at factor cost figure while subtracting subsidies, we obtain the total income generated. Indirect taxes, which are not considered among income directly associated with the production of goods and services, nevertheless remain one of the types of income generated. Subsidies however are subtracted from the total since they represent public funds and cause a decrease in net government revenues.

Table 6 illustrates the breakdown of total income generated by spending attributable to the Trent-Severn. Parks' expenditures account for more than 80% of the $19.68 million total income generated. Salaries, wages, and supplementary labour income that are generated by these expenditures are the main type of income created. They represent over 66% of all income generated by the canal in Ontario. Figure 2(a) illustrates the process used to derive total income from labour income.

TABLE 5

Direct, Indirect And Induced Gross Domestic Product At Factor Cost Generated In Ontario

	Trent-Severn $ 000	Visitors $ 000	Total $ 000
Direct GDP	8,207.3	1,502.3	9,709.6
Indirect and Induced GDP	6,432.4	1,659.7	8,092.1
Total GDP	**14,639.7**	**3,162.0**	**17,801.7**

TABLE 6

Total Income Generated In Ontario

	Trent-Severn $ 000	Visitors $ 000	Total $ 000
Salaries, wages and supplementary labour income	11,147.0	1,893.9	13,040.9
Net income of individual businesses	556.8	307.8	864.6
Other surpluses	2,935.9	960.3	3,896.2
Sub-total: GDP at factor cost	**14,639.7**	**3,162.0**	**17,801.7**
Indirect taxes less subsidies	1,511.1	364.1	1,875.2
Total	**16,150.8**	**3,526.1**	**19,676.9**

FIGURE 2(a)

Breakdown Of Total Income Generated In Ontario

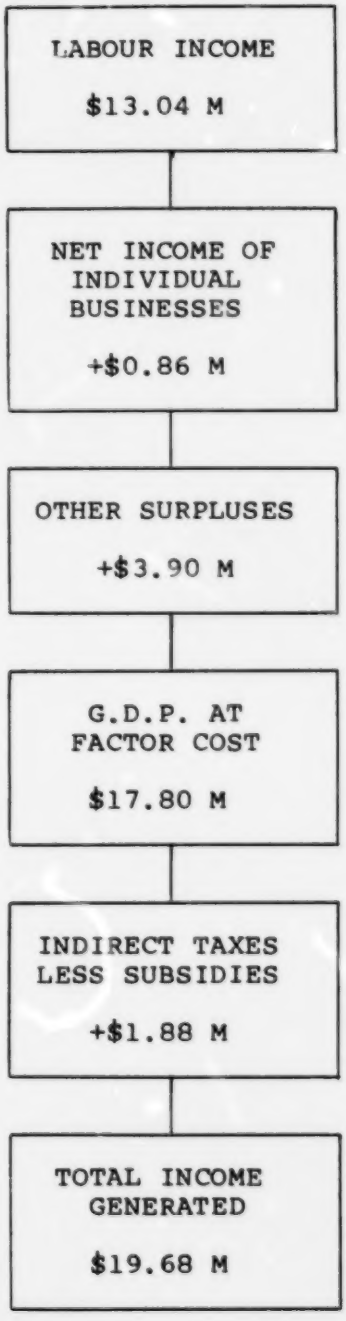
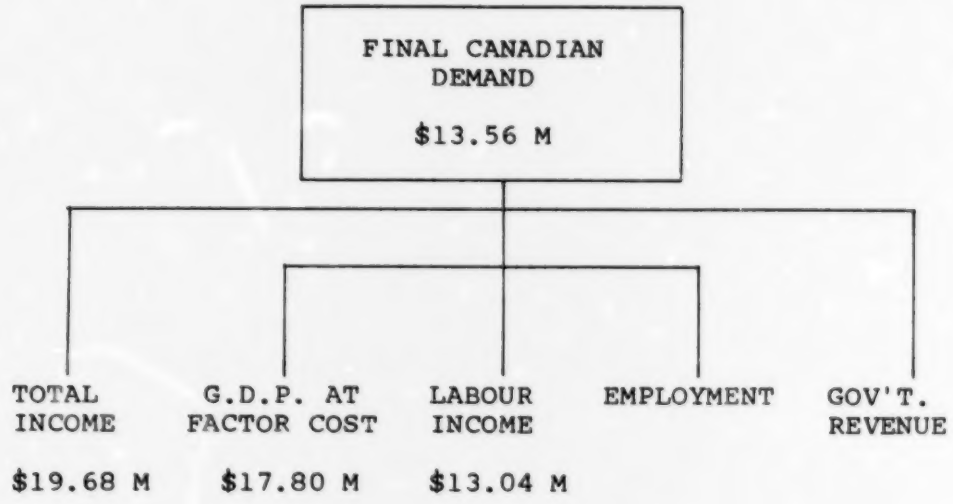


Figure 2(b) summarizes the topics covered thus far.

FIGURE 2(b)

Impact On Income In Ontario



CHAPTER III

IMPACT ON EMPLOYMENT IN ONTARIO

Spending by Parks and canal visitors also generates employment opportunities.

Table 7 shows the impact on employment that results from the final Canadian demand of $13.56 million (Table 1). It shows that the canal and visitors generated some 575.4 person-years of work, including the 242 employees (full-time equivalent) of the canal. Visitors were responsible for the creation of 116.9 and Trent-Severn Canal 458.5 person-years of employment respectively.

Once again, most of the jobs generated (73% excluding Parks employees) were in the tertiary sector, i.e. 243.8 person-years. This finding is not surprising since we already know that the tertiary sector is highly labour-intensive and that visitors concentrate most of their spending on services in this sector.

Spending related to the existence of the Trent-Severn Canal therefore has meaningful repercussions on job creation. Table 8 shows the number of direct, indirect and induced jobs, as well as the total jobs created in person-years. Of the 575 jobs created, more than 60% are direct when Parks' employees are included.

3.1 Labour Income and Employment Impact

In addition to creating more jobs, Trent-Severn Canal expenditures also give rise to higher paying jobs. Using the figures for labour income generated and number of jobs created, the annual average salary paid for a job created by visitor spending was an estimated $16,200. The corresponding figure for jobs created by the canal's expenditures was $24,300. The combination of visitor and Trent-Severn Canal spending creates a total of 575 jobs at an annual average salary of $22,700. Since it is assumed that visitor spending results from the existence of the Trent-Severn Canal, it could be said that the Trent-Severn Canal creates one person-year of employment for every $20,200 worth of Parks' expenditures.

TABLE 7

Person-Years Generated In Ontario
By Industry Sector

Industry Sector	Trent-Severn	Visitors	Total
Primary	4.6	2.1	6.7
Secondary	41.0	9.5	50.5
Construction	31.1	1.3	32.4
Tertiary	139.8	104.0	243.8
- Transportation & warehousing	6.9	4.2	11.1
- Utilities	6.2	1.4	7.6
- Retail & trade	44.8	18.9	63.7
- Accommodation & restaurants	20.2	60.1	80.3
- Services to business	13.7	2.0	15.7
- Other	48.0	17.4	65.4
Sub-total	**216.5**	**116.9**	**333.4**
Trent-Severn Canal	242.0	-	242.0
Total	**458.5**	**116.9**	**575.4**

TABLE 8

Number Of Direct, Indirect And Induced
Person-Years Generated In Ontario

	Trent-Severn	Visitors	Total
Direct	292.2	73.2	365.4
Indirect and Induced	166.3	43.7	210.0
Total	**458.5**	**116.9**	**575.4**

FIGURE 3(a)

Impact On Income And Employment In Ontario

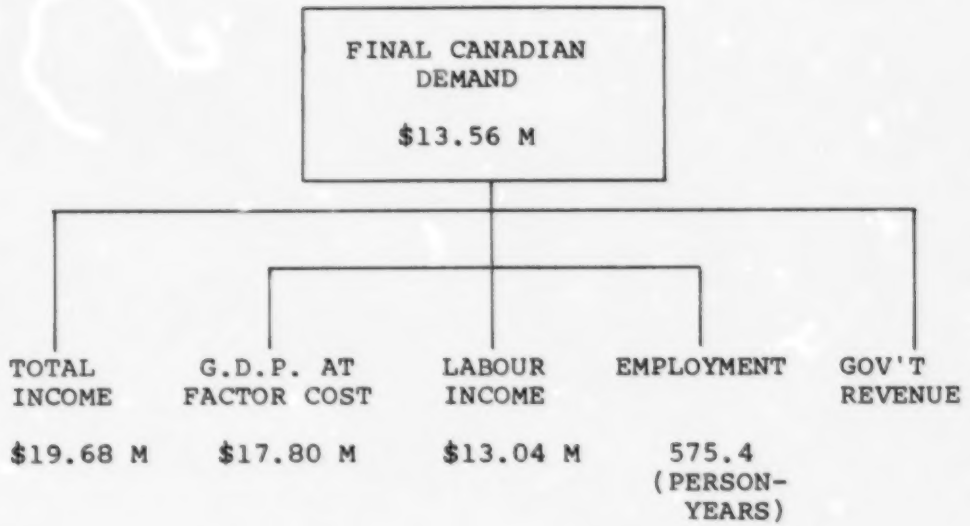


TABLE 9

Government Revenue Generated

In Ontario	Trent-Severn $ 000	Visitors $ 000	Total $ 000
Direct taxes*	3,051.7	622.1	3,673.8
Commodity indirect taxes	959.2	202.2	1,161.4
Government goods and services	19.9	7.8	27.7
Non-commodity indirect taxes	620.2	193.8	814.0
Minus subsidies	-88.2	-39.7	-127.9
Sub-total	**4,562.8**	**986.2**	**5,549.0**
Revenue from Trent-Severn capital assets, permits, etc.	298.6	150.9	449.5
Total	**4,861.4**	**1,137.1**	**5,998.5**
In other provinces			
Direct taxes*	689.0	208.0	897.0
Other taxes less subsidies	306.1	90.0	396.1
Total	**995.1**	**298.0**	**1,293.1**
Total revenue generated in Canada	**5,856.5**	**1,435.1**	**7,291.6**

*Estimated at Parks

CHAPTER IV

IMPACT ON GOVERNMENT REVENUE

Expenditures made by Parks and canal visitors also generates revenue for governments. Table 9 shows the government revenue generated by these expenditures. It shows clearly that the repartition of the impact by type of revenue is relatively similar no matter where the spending originates (visitors or Trent-Severn Canal). Of the $11.62 million in Parks' canal expenditures and the $3.07 million in visitor spending, a total of $6.0 million returns to various levels of government in Ontario. All direct and indirect taxes represent more than 92% of government revenue or $5.55 million. Out of each dollar spent by Parks on the Trent-Severn Canal, governments recover 52 cents in Ontario. Another $1.29 million in government revenue is collected in the other provinces. As a whole, government revenue totals $7.29 million in Canada.

Based on the National Income Accounts and the Ontario Economic Accounts [4], it can be estimated that the federal government's share of the tax revenue ($6.84 million) is $2.65 million over and above the $450 thousand collected directly through lockage permits, etc. Subtracting these sources of revenue, the Trent-Severn Canal costs the federal treasury $11.62 million minus ($2.65 million + $0.45 million) = $8.52 million in 1984-85.

Based on the Ontario Provincial Economic Accounts we can assume that of the tax revenue generated in Ontario ($5.55 million in Table 9) the Ontario provincial government's share is $1.83 million.

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4 Statistics Canada, "Provincial Economic Accounts", Catalogue 13-213.

Statistics Canada, "National Income And Expenditure Accounts", Catalogue 13-201.

FIGURE 4(a)

Sources Of Government Revenue

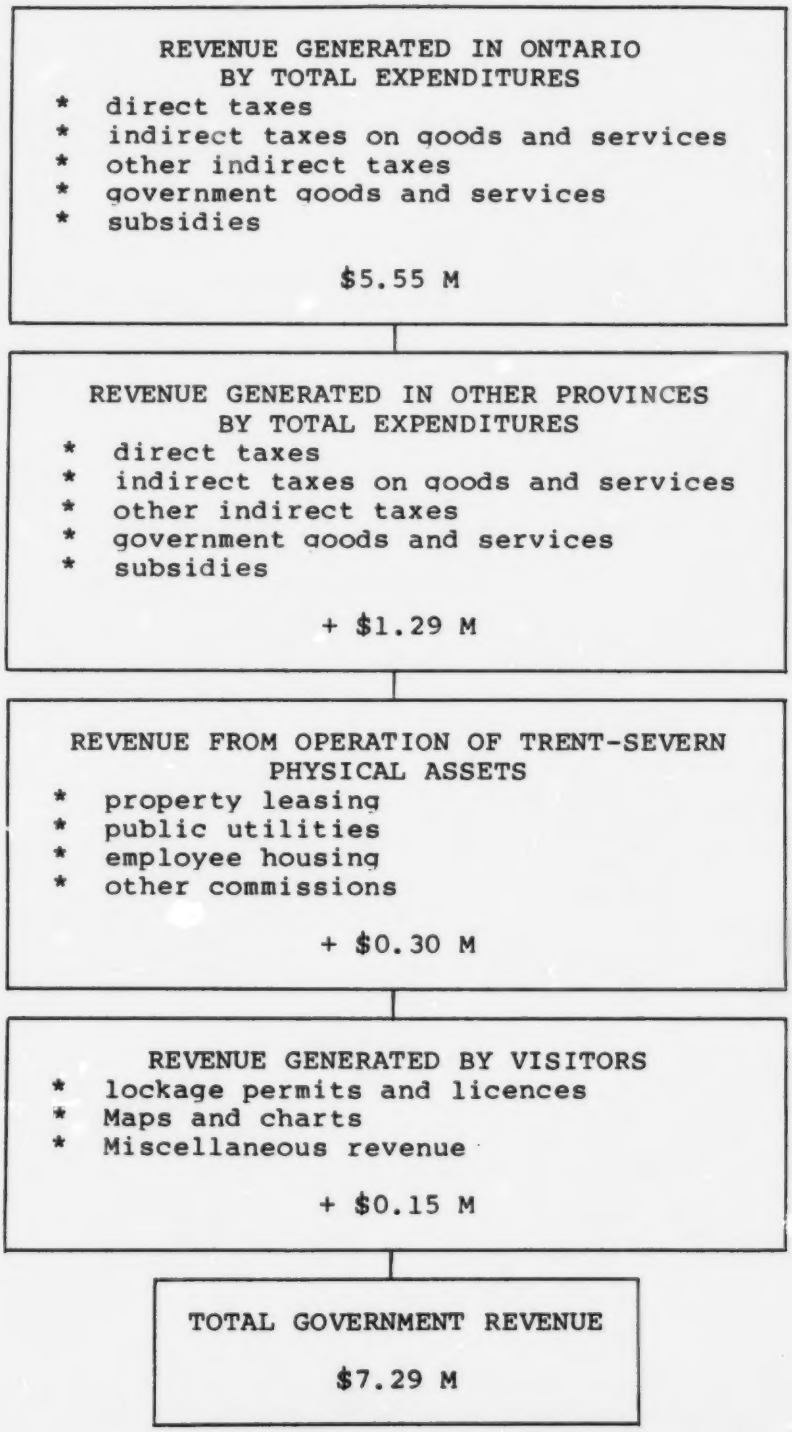
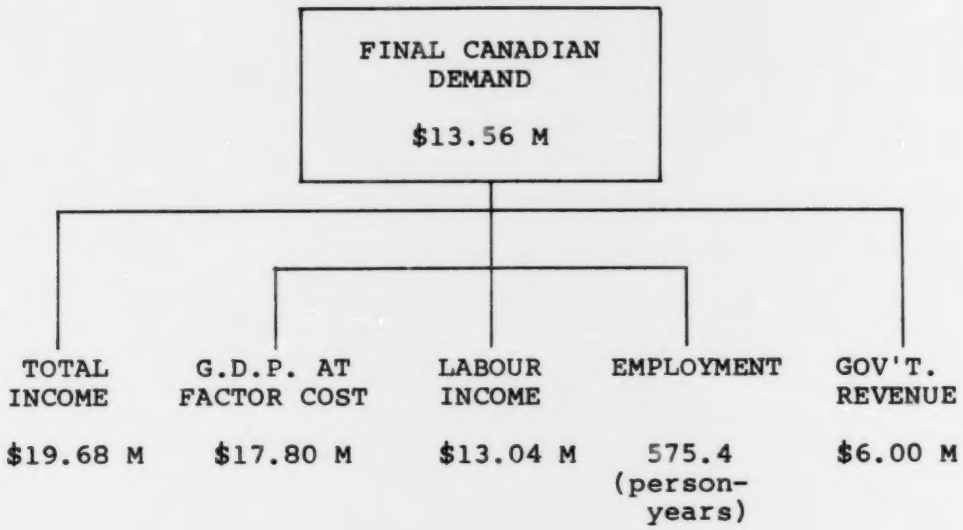


FIGURE 4(b)

Impact On Income, Employment And Government Revenue In Ontario



CONCLUSION

Although the primary objective of operating the Trent-Severn Canal is the preservation of this historic national canal for the benefit and enjoyment of present and future generations, this report demonstrates that spending attributable to the canal facilities has an significant impact on the Ontario economy. In fact, whether for gross domestic product, labour income, job creation, or government revenues, the economic repercussions of the canal are significant.

Because the figures given in this report are simulation results, some factors that are difficult to take into account are omitted. These include volunteer work, unpaid work, market imperfections and capacity limitations. One must not lose sight of the fact that the figures should be viewed as approximate rather than absolute.

It should be recognized that the economic impact assessment does not include expenditures made by the private sector to construct facilities used to service visitors. Similarly, expenditures made by the visitors on recreation equipment used during their visit to the canal are not accounted for. Expenditures of other government departments not included in the canal's budget such as for the Department of Public Works are likewise not included in the assessment. Finally, the report does not examine "primary" economic benefits resulting from the regulation of water levels on land values, cottages and businesses. Nor does the study examine the value visitors place on the opportunity to use the canal as a recreation resource.

A number of socio-economic questions are also avoided in this study. Thus structural changes arising in a given region around the canal are not considered. Are the jobs created seasonal or permanent? Do they improve the quality of life? Is there a spill-over effect on local or regional entrepreneurship? Questions such as these are all socio-economic considerations that have been omitted from this study. The results included in this report have been analyzed strictly from an economic standpoint, which calls for a factual description of the impact of spending attributable to the Trent-Severn Canal.